

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-014108**Date Inspected:** 05-May-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

**CWI Name:** Yu Dong Ping  
**Inspected CWI report:** Yes No N/A  
**Electrode to specification:** Yes No N/A  
**Qualified Welders:** Yes No N/A  
**Approved Drawings:** Yes No N/A

**CWI Present:** Yes No  
**Rod Oven in Use:** Yes No N/A  
**Weld Procedures Followed:** Yes No N/A  
**Verified Joint Fit-up:** Yes No N/A  
**Approved WPS:** Yes No N/A  
**Delayed / Cancelled:** Yes No N/A

**Bridge No:** 34-0006**Component:** Tower**Summary of Items Observed:**

On this day CALTRANS OSM Quality Assurance (QA) Inspector Shailesh Gaikwad was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island in Shanghai, China. QA observed and/or found the following:

**BAY 11**

This QA Inspector performed randomly Visual Inspection Ultrasonic Testing (UT) of approximately 10% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated a TL- 6027 (UT) report for this date. The member is identified as West tower lift 5. The weld designations reviewed are as follows.

WSD1-TL5-4B/F-10A/B, 9A/B,  
NDT Notification No-005664

**BAY 11**

This QA Inspector performed randomly Visual Inspection Magnetic Particle Testing (MT) of approximately 15% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated a TL- 6028 (MT) report for this date. The member is identified as East tower lift 3 Cable Tray. The weld designations reviewed are as follows.

B22-3-EL109.048M-1-1-E, 1-2-E, 2-1-E, 2-2-E,

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B22-3-EL109.753M-1-1-E, 1-2-E, 2-1-E, 2-2-E,  
B22-3-EL110-636M-1-1-E, 1-2-E, 2-1-E, 2-2-E  
B22-3-EL99.043M-1-1-E, 1-2-E, 2-1-E, 2-2-E  
B22-3-EL91.041M-1-1-E, 1-2-E, 2-1-E, 2-2-E  
B22-3-EL92.340M-1-1-E, 1-2-E, 2-1-E, 2-2-E  
B22-3-EL88.083M-1-1-E, 1-2-E, 2-1-E, 2-2-E  
B22-3-EL99.748M-1-1-E, 1-2-E, 2-1-E, 2-2-E  
B22-3-EL102.345M-1-1-E, 1-2-E,  
B22-3-EL104.046M-1-1-E, 1-2-E, 2-1-E, 2-2-E

NDT Notification No-005668

This QA Inspector observed the following work in progress:

BAY 11:

SMAW Process:

This QA Inspector observed ZPMC qualified welding personnel identified as 044551. Perform Shielded Metal Arc Welding (SMAW) on Tower Strut. Joint identified as ED1-STSA4-6-135M-1-73B. ZPMC QC Identified as Xu Jin Long, The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-3212-Tc-U5b-1.

This QA Inspector observed ZPMC qualified welding personnel identified as 044541. Perform Shielded Metal Arc Welding (SMAW) on Tower Strut. Joint identified as ED1-STSA4-6-135M-1-6A. ZPMC QC Identified as Xu Jin Long, The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-3212-Tc-U5b-1.

This QA Inspector observed ZPMC qualified welding personnel identified as 041271. Perform Shielded Metal Arc Welding (SMAW) on Tower Strut. Joint identified as ND1-STSA4-6-127M-2-73B. ZPMC QC Identified as Xu Jin Long, The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-3212-Tc-U5b-1.

This QA Inspector observed ZPMC qualified welding personnel identified as 046709. Perform Shielded Metal Arc Welding (SMAW) on Tower Strut. Joint identified as ND1-STSA4-6-127M-2-6A. ZPMC QC Identified as Xu Jin Long, The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-3212-Tc-U5b-1.

This QA Inspector observed ZPMC qualified welding personnel identified as 044551, 044541. Perform Shielded Metal Arc Welding (SMAW) on Tower Strut. Joint identified as ED1-STSA4-6-135M-1-9A, ZPMC QC Identified as Xu Jin Long, The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-2212-Tc-U5b.

This QA Inspector observed ZPMC qualified welding personnel identified as 041271, 046709. Perform Shielded Metal Arc Welding (SMAW) on Tower Strut. Joint identified as ND1-STSA4-6-127M-2-9A, ZPMC QC Identified as Xu Jin Long, The welding parameters as measured using QC's calibrated instrument appeared to be

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in general compliance with WPS-B-T-2212-Tc-U5b.

This QA Inspector observed ZPMC qualified welding personnel identified as 040667. Perform Shielded Metal Arc Welding (SMAW) on Tower Strut. Joint identified as SD1-STSA4-5-127M-1-48B, ZPMC CWI Identified as Yu Dong Ping, The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-3212-Tc-U5b-1.

This QA Inspector observed ZPMC qualified welding personnel identified as 040619, 040690. Perform Shielded Metal Arc Welding (SMAW) on East Tower lift 5 Grillage plate. Joint identified as ESD1-TL5-2B/F-1A/B, ZPMC CWI Identified as Lilin, The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-3213-B-U3b.

This QA Inspector observed ZPMC qualified welding personnel identified as 040667, 040614. Perform Shielded Metal Arc Welding (SMAW) on Tower Strut. Joint identified as SD1-STSA4-5-127M-1-8B, ZPMC CWI Identified as Yu Dong Ping, The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-2212-Tc-U5b. For more information see below attach photo.

### BAY 10

#### FCAW Process:

This QA Inspector observed ZPMC qualified welding personnel identified as 057018. Perform Flux Core Arc Welding (FCAW) on Facade Channel. Joint identified as ND1-SFSA3-23-3, 4, ZPMC QC Identified as Zhu Zhong Jie, The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-2132. For more information see below attach photo.

This QA Inspector observed ZPMC qualified welding personnel identified as 052075. Perform Flux Core Arc Welding (FCAW) on Facade Channel. Joint identified as SD1-SFSA3-20-3, 4, ZPMC QC Identified as Zhu Zhong Jie, The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-2132.

This QA Inspector observed ZPMC qualified welding personnel identified as 053870. Perform Flux Core Arc Welding (FCAW) on Facade Channel. Joint identified as ND1-SFSA3-21-3, 4, ZPMC QC Identified as Zhu Zhong Jie, The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-2132.

#### Repair welding: SMAW Process,

This QA Inspector observed ZPMC qualified welding personnel identified as 052930. Perform Shielded Metal Arc Welding (SMAW) on South Tower lift 3 Skin B and E, Base metal repair. ZPMC QC Identified as Li Peng Fei, The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-345-SMAW-1G, 2G, 3G (1F, 2F, 3F) Repair.

Unless otherwise noted, all work observed on this date appeared to be in general compliance with the applicable contract documents.

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## Summary of Conversations:

Only general conversation was held between QA and QC concerning this project.

## Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Skyler Guest phone: 15000422360, who represents the Office of Structural Materials for your project.

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**Inspected By:** Gaikwad,Shailesh

Quality Assurance Inspector

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**Reviewed By:** Clifford,William

QA Reviewer